

# AUTOPILOT CONTROL PANEL

**MASTER SWITCH . . .**  
TURNS ON . . . AMPLIFIER,  
ROTARY INVERTER, VERTICAL  
FLIGHT GYRO, AND THREE SERVO  
UNITS . . .

(Turn on after take-off)

CENTER THE "TELL-TALE" LIGHTS  
BEFORE TURNING ON SWITCHES  
(Rudder switch energizes "ERECTING  
CUT-OUT" and "DIRECTIONAL ARM  
LOCK" circuits)

**DIRECTIONAL STAB.**

**TORQUE MOTOR**  
In Stabilizer

**PILOT DIRECTOR  
INDICATOR . . .** SHOWS  
DIRECTION OF COURSE CORRECTION  
. . . OR WHETHER DIRECTIONAL  
STABILIZER IS LOCKED TIGHT FOR  
TURNS (Turn on five minutes after  
Master Switch)

**REMOTE  
CONTROL**

**BANK TRIMMER . . .**  
REGULATES THE AMOUNT OF BANK  
FOR A DIRECTIONAL PANEL TURN  
ONLY

**SKID TRIMMER . . .**  
REDUCES THE TENDENCY TO SKID  
FOR A DIRECTIONAL PANEL TURN

**CENTERING . . .** ALIGNS  
THE CENTER OF "ELECTRICAL CONTROL  
SYSTEM" WITH THE "TRIM" POSITION  
IN FLIGHT (Indicated by Tell-Tale lights)

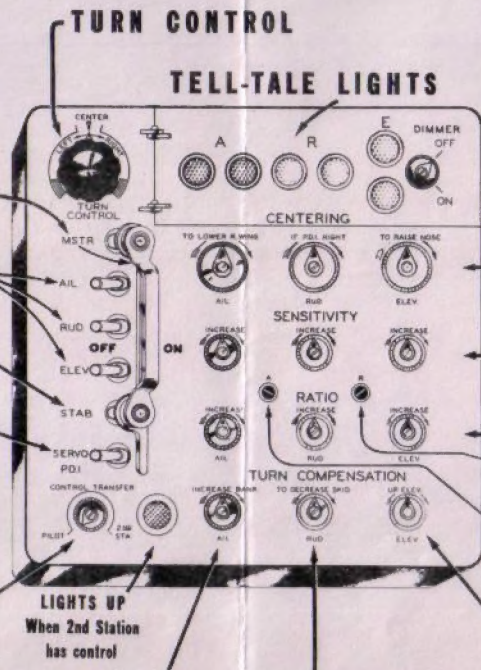
**SENSITIVITY . . .** REGULATES  
THE ALLOWABLE SHIP MOVEMENT  
(FLIGHT RIGIDITY) BEFORE THE  
AUTOPILOT BEGINS TO CONTROL

**RATIO . . .** REGULATES THE  
AMOUNT OF CONTROL-SURFACE  
DISPLACEMENT (Speed of Response)  
FOR A GIVEN SIGNAL (Deviation from  
course)

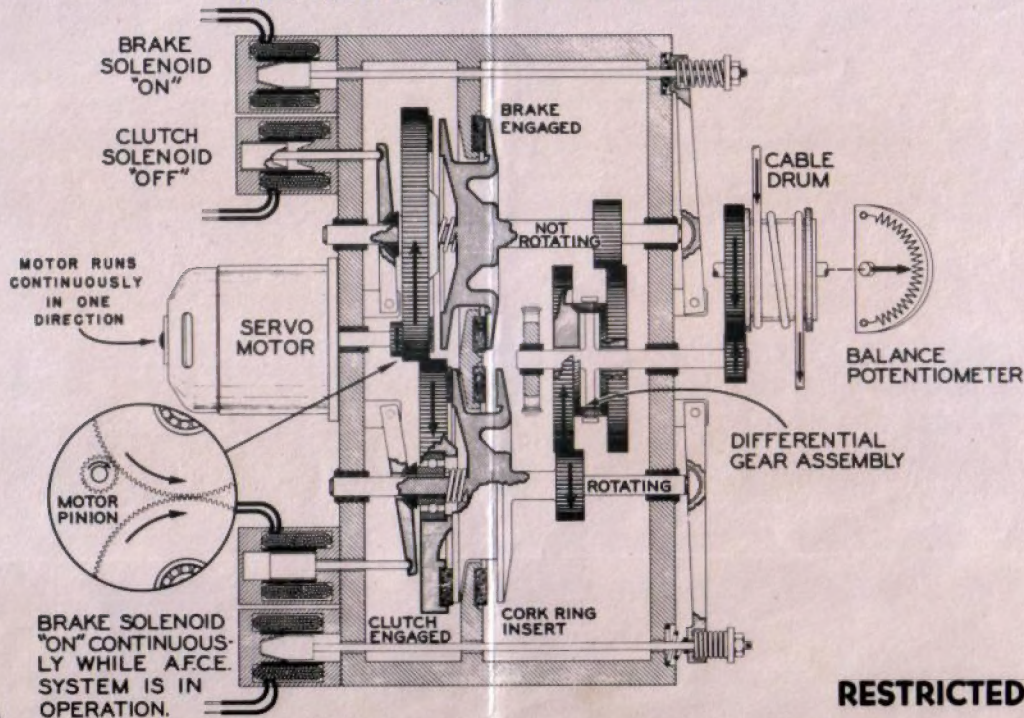
**TURN CONTROL  
RUDDER TRIMMER**  
(Check with Ball-Bank Inclinometer)

**TURN CONTROL  
AILERON TRIMMER**  
(Check with Artificial Horizon)

**ELEVATOR TRIMMER**  
REGULATES THE AMOUNT OF UP-  
ELEVATOR FOR BOTH DIRECTIONAL  
PANEL AND TURN CONTROL TURNS

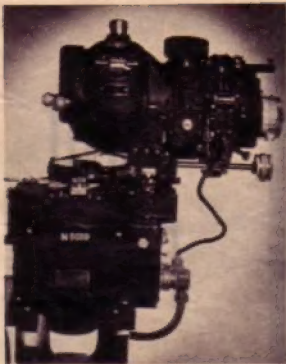


# SERVO UNIT MECHANICAL SCHEMATIC



(D)

**RESTRICTED**



11. No longer secret is the:

- |                     |                    |
|---------------------|--------------------|
| a) radar detector   | c) television bomb |
| b) Norden bombsight | head               |
|                     | d) automatic pilot |



- 1- TRIM THE SHIP adjust the electrical trim to the manual
- 2- The sensitivity knobs are used to vary the degree the plane can move before the auto takes effect.
- 3- The "decrease ship", "increase bomb" and "up elevator" are used.
- 4- The POI and stabilizer gyro.
- 5- "Up elevator" knob
- 6- ~~down~~ left
- 7- "decrease ship" knob
- 8-
- 9-
- 10- 10° The gyro tumbles at 22°
- 11- Centering knobs
- 12- Low
- 13- Master switch and stabilizer gyro
- 14- 0 position
- 15-
- 16- Air.
- 17- Bomb. legs